

# ABB BALDOR RELIANCE III

---

## Customer information packet

### EM74204T-4

200//150HP, 1785//1485RPM, 3PH, 60//50HZ, 44

Class - CLI GP C,D; CLII GP F,G

Division - Division I

**Specifications**

|                                      |                                            |
|--------------------------------------|--------------------------------------------|
| <b>Enclosure</b>                     | TEFC                                       |
| <b>Frame</b>                         | 449T                                       |
| <b>Frame Material</b>                | Iron                                       |
| <b>Frequency</b>                     | 50.00 Hz<br>60.00 Hz                       |
| <b>Haz Area Class and Group</b>      | CLI GP C,D; CLII GP F,G                    |
| <b>Haz Area Division</b>             | Division I                                 |
| <b>Motor Letter Type</b>             | Three Phase                                |
| <b>Output @ Frequency</b>            | 200.000 HP @ 60 HZ<br>150.000 HP @ 50 HZ   |
| <b>Phase</b>                         | 3                                          |
| <b>Synchronous Speed @ Frequency</b> | 1500 RPM @ 50 HZ                           |
| <b>Voltage @ Frequency</b>           | 380.0 V @ 50 HZ<br>460.0 V @ 60 HZ         |
| <b>Agency Approvals</b>              | CSA EEV<br>CCSA US<br>CSA<br>UL            |
| <b>Ambient Temperature</b>           | 40 °C                                      |
| <b>Auxiliary Box</b>                 | NO AUXILLARY BOX                           |
| <b>Base Indicator</b>                | Rigid                                      |
| <b>Bearing Grease Type</b>           | Polyrex EM (-20F +300F)                    |
| <b>Current @ Voltage</b>             | 216.000 A @ 460.0 V<br>197.000 A @ 380.0 V |
| <b>Design Code</b>                   | B                                          |
| <b>Drip Cover</b>                    | No Drip Cover                              |
| <b>Duty Rating</b>                   | CONT                                       |
| <b>Efficiency @ 100% Load</b>        | 96.2 %                                     |
| <b>Feedback Device</b>               | NO FEEDBACK                                |
| <b>Haz Area Temp Code</b>            | T4                                         |
| <b>Heater Indicator</b>              | No Heater                                  |
| <b>High Voltage Full Load Amps</b>   | 197.0 a                                    |

**Part Detail**

|                     |                      |
|---------------------|----------------------|
| <b>Revision</b>     | G                    |
| <b>Type</b>         | AC                   |
| <b>Mech. spec.</b>  |                      |
| <b>Base</b>         |                      |
| <b>Status</b>       | INA/A                |
| <b>Elec. spec.</b>  | A44WG1549            |
| <b>Layout</b>       | 617426-166           |
| <b>Eff. date</b>    | 03-10-2021           |
| <b>CD Diagram</b>   | 416820-036           |
| <b>Poles</b>        | 04                   |
| <b>Leads</b>        | 3#1/0 (02 per group) |
| <b>Proprietary</b>  | False                |
| <b>Created date</b> | 04-22-2015           |

|                                      |                            |
|--------------------------------------|----------------------------|
| <b>Insulation Class</b>              | F                          |
| <b>Inverter Code</b>                 | Not Inverter               |
| <b>KVA Code</b>                      | F                          |
| <b>Lifting Lugs</b>                  | Standard Lifting Lugs      |
| <b>Motor Lead Quantity/Wire Size</b> | 6 @ 1/0 AWG                |
| <b>Motor Standards</b>               | NEMA                       |
| <b>Motor Type</b>                    | A44144M                    |
| <b>Mounting Arrangement</b>          | F1                         |
| <b>Number of Poles</b>               | 4                          |
| <b>Overall Length</b>                | 48.22 IN                   |
| <b>Power Factor</b>                  | 90                         |
| <b>Product Family</b>                | General Industrial         |
| <b>Pulley End Bearing Type</b>       | Ball                       |
| <b>Pulley Face Code</b>              | Standard                   |
| <b>Service Factor</b>                | 1.00                       |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding         |
| <b>Shaft Rotation</b>                | Reversible                 |
| <b>Shaft Slinger Indicator</b>       | No Slinger                 |
| <b>Speed</b>                         | 1485 rpm<br>1785 rpm       |
| <b>Speed Code</b>                    | Single Speed               |
| <b>Starting Method</b>               | Direct on line             |
| <b>Thermal Device - Bearing</b>      | None                       |
| <b>Thermal Device - Winding</b>      | Normally Closed Thermostat |

**Nameplate**

|                  |  |
|------------------|--|
| NP2496L          |  |
| MOBIL POLYREX EM |  |

|                     |       |     |
|---------------------|-------|-----|
| 000613006PC         |       |     |
| CLASS I GROUP       | C D X | NO. |
| CLASS II GROUP      | F G X |     |
| OPERATING TEMP CODE | T4    |     |

**NP2293L**

|                          |            |                            |               |                    |    |                     |              |      |
|--------------------------|------------|----------------------------|---------------|--------------------|----|---------------------|--------------|------|
| <b>CAT.NO.</b>           |            | <b>SPEC NO.</b>            | A44-7167-1549 |                    |    |                     | <b>FRAME</b> | 449T |
| <b>HP</b>                | 200//150   | <b>PHASE</b>               | 3             | <b>DESIGN</b>      | B  | <b>TYPE</b>         | P            |      |
| <b>RPM</b>               | 1785//1485 | <b>HZ</b>                  | 60//50        | <b>AMB</b>         | 40 | <b>SF</b>           | 1.00         |      |
| <b>VOLTS</b>             | 460//380   | <b>DUTY</b>                | CONT          | <b>INSUL.CLASS</b> | F  |                     |              |      |
| <b>AMPS</b>              | 216//197   | <b>ENCL</b>                | TEFC          | <b>CODE</b>        | F  |                     |              |      |
| <b>DRIVE END BEARING</b> | 90BC03J30X | <b>NEMA-NOM-EFFICIENCY</b> | 96.2          |                    |    |                     |              |      |
| <b>OPP D.E. BEARING</b>  | 90BC03J30X |                            |               |                    |    |                     |              |      |
| <b>SER.NO.</b>           |            |                            |               |                    |    |                     |              |      |
|                          |            |                            |               |                    |    | <b>MOTOR WEIGHT</b> |              |      |

|                                                                                                                                                                                                                                                      |             |                   |                       |                                            |                 |       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------------|-----------------------|--------------------------------------------|-----------------|-------|
| REL.<br>S.O.                                                                                                                                                                                                                                         | FRAME       | HP                | TYPE                  | PHASE/<br>HERTZ                            | RPM             | VOLTS |
|                                                                                                                                                                                                                                                      | 449T        | 200               | P                     | 3/60                                       | 1785            | 460   |
| AMPS                                                                                                                                                                                                                                                 | DUTY        | AMB °C/<br>INSUL. | S.F.                  | NEMA<br>DESIGN                             | CODE<br>LETTER  | ENCL. |
| 216                                                                                                                                                                                                                                                  | CONT        | 40/F              | 1.0                   | B                                          | F               | FCXE  |
| E/S                                                                                                                                                                                                                                                  | ROTOR       | TEST<br>S.O.      | TEST<br>DATE          | STATOR RES. @25 °C<br>OHMS (BETWEEN LINES) |                 |       |
| 833030                                                                                                                                                                                                                                               | 418143047SE | ---               | ---                   | .0166                                      |                 |       |
| PERFORMANCE                                                                                                                                                                                                                                          |             |                   |                       |                                            |                 |       |
| LOAD                                                                                                                                                                                                                                                 | HP          | AMPERES           | RPM                   | %<br>POWER FACTOR                          | %<br>EFFICIENCY |       |
| NO LOAD                                                                                                                                                                                                                                              | 0           | 42.6              | 1800                  | 6.27                                       | 0               |       |
| 1/4                                                                                                                                                                                                                                                  | 50.1        | 66.2              | 1796                  | 75.3                                       | 94.1            |       |
| 2/4                                                                                                                                                                                                                                                  | 100         | 110               | 1792                  | 88.7                                       | 96.1            |       |
| 3/4                                                                                                                                                                                                                                                  | 150         | 161               | 1788                  | 90.3                                       | 96.4            |       |
| 4/4                                                                                                                                                                                                                                                  | 200         | 216               | 1784                  | 89.9                                       | 96.2            |       |
| 5/4                                                                                                                                                                                                                                                  | 250         | 273               | 1779                  | 89.5                                       | 95.8            |       |
|                                                                                                                                                                                                                                                      |             |                   |                       |                                            |                 |       |
| SPEED TORQUE                                                                                                                                                                                                                                         |             |                   |                       |                                            |                 |       |
|                                                                                                                                                                                                                                                      |             | RPM               | TORQUE<br>% FULL LOAD | TORQUE<br>LB.-FT.                          | AMPERES         |       |
| LOCKED ROTOR                                                                                                                                                                                                                                         |             | 0                 | 165                   | 968                                        | 1402            |       |
| PULL UP                                                                                                                                                                                                                                              |             | 500               | 140                   | 824                                        | 1218            |       |
| BREAKDOWN                                                                                                                                                                                                                                            |             | 1728              | 255                   | 1500                                       | 741             |       |
| FULL LOAD                                                                                                                                                                                                                                            |             | 1784              | 100                   | 588                                        | 216             |       |
| AMPERES SHOWN FOR 460. VOLT CONNECTION. IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE<br>AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE<br><br>REMARKS: CALCULATED DATA<br>XE MOTOR-NEMA NOM. EFF. 96.2 PCT.<br>GUARANTEED MIN. EFF. 95.4 PCT. |             |                   |                       |                                            |                 |       |
|                                                                                                                                                                   |             | DR. BY            | E. J. CHRISTIAN       | <b>A-C MOTOR<br/>PERFORMANCE DATA</b>      |                 |       |
|                                                                                                                                                                                                                                                      |             | CK. BY            | T. G. KELATI          |                                            |                 |       |
|                                                                                                                                                                                                                                                      |             | APP. BY           | T. G. KELATI          |                                            |                 |       |
|                                                                                                                                                                                                                                                      |             | DATE              | 07/07/16              |                                            |                 |       |
|                                                                                                                                                                                                                                                      |             |                   |                       | A44WG1549-R005<br>ISSUE DATE 07/07/16      |                 |       |

REL S.O.

RPM 1785

S.F. 1.0

ROTOR 418143047SE

FRAME 449T

VOLTS 460

NEMA DESIGN B

TEST S.O. CALCULATED DATA

HP 200

AMPS 216

CODE LETTER F

TEST DATE ---

TYPE P

DUTY CONT

ENCLOSURE FCXE

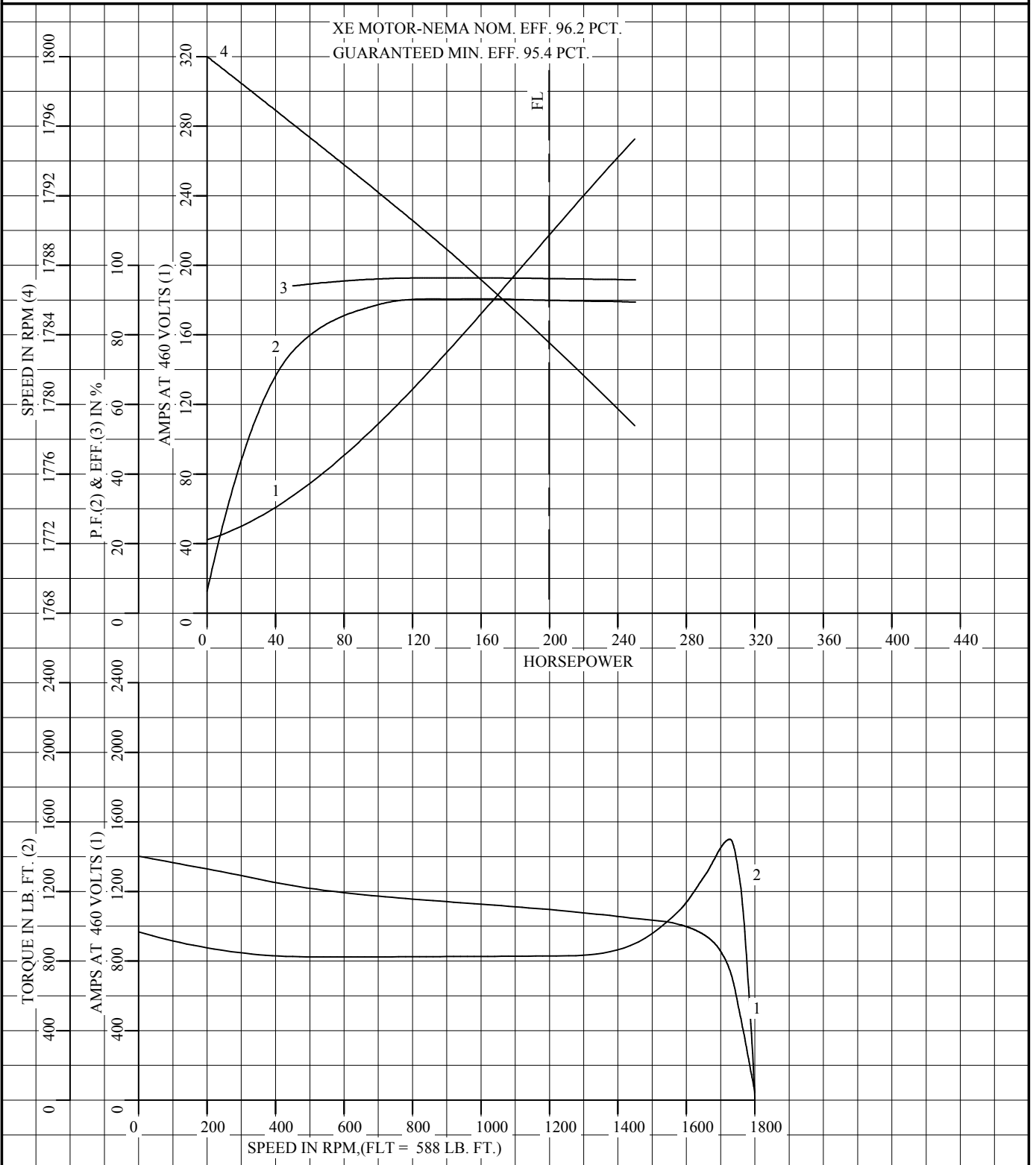
STATOR RES. @ 25 °C .0166

PHASE/HERTZ 3/60

AMB °C/INSUL 40/F

E/S 833030

OHMS (BETWEEN LINES)



AMPERES SHOWN FOR 460 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.

**BALDOR**  
 A MEMBER OF THE ABB GROUP

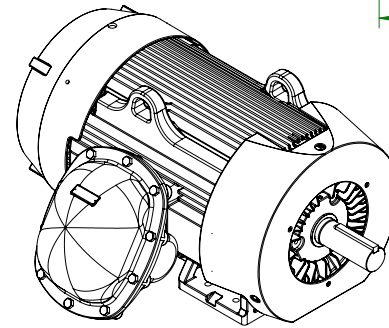
DR. BY E.J. CHRISTIAN  
 CK. BY T.G. KELATI  
 APP. BY T.G. KELATI  
 DATE 07/07/16

**A-C MOTOR  
PERFORMANCE  
CURVES**

A44WG1549-R005  
 ISSUE DATE 07/07/16

Page 8 of 11

INCLUDES G449T FRAME MOUNTING HOLES

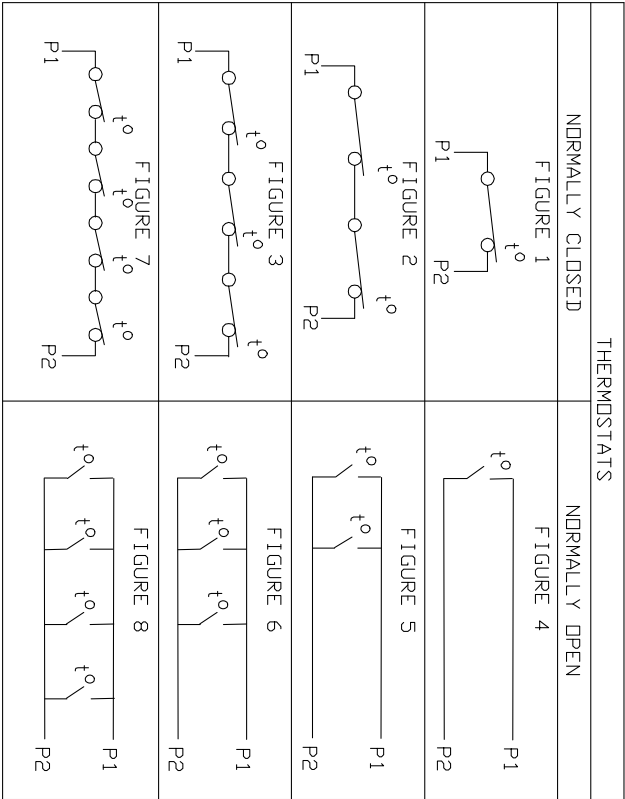


- CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

G449T/447T XP FT SIDE/CTR C/B - CL 1 C / CL 2 E,F & G 3"NPT

CONNECTION DIAGRAM  
ACCESSORIES

|                           |                       |                   |
|---------------------------|-----------------------|-------------------|
| MOTOR WINDING THERMOSTATS |                       |                   |
| CONTACTS _____ @ _____ °C |                       |                   |
| FIGURE NUMBER _____       |                       |                   |
| CONTACT RATING            |                       |                   |
| VOLTS                     | CONTINUOUS<br>AMPERES | INRUSH<br>AMPERES |
| 110-120                   | 3.0                   | 30                |
| 220-240                   | 1.5                   | 15                |
| 440-480                   | 0.75                  | 7.5               |
| 550-600                   | 0.60                  | 6.0               |

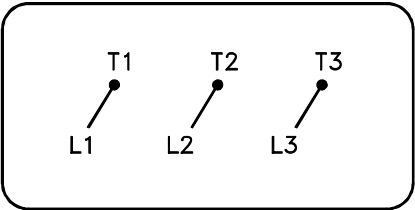


CUSTOMER \_\_\_\_\_ CUSTOMER ORDER NO. \_\_\_\_\_ S.O. NO. \_\_\_\_\_

|                          |                              |                   |
|--------------------------|------------------------------|-------------------|
| REV. DESC: LOADED TO BUS |                              |                   |
| REV. LTR: A              | VERSION: 01                  | TDR: 000000570390 |
| FILE: \RAG\00013\849     | REVISED: 10:16:21 12/07/2010 | BY: RAGDRF        |
| MTL: -                   |                              |                   |

416820-036

A-C MOTOR  
CONNECTION DIAGRAM  
STANDARD 3 LEAD                      CONNECTED



(N.P. 1575-BA)

416820-036

|                                      |                                |                   |
|--------------------------------------|--------------------------------|-------------------|
| REV. DESC: LOADED TO BUS, C/R 335225 |                                |                   |
| REV. LTR: -                          | VERSION: 00                    | TDR: 000000538207 |
| FILE: \MGA\00000\682                 | REVISED: 11: 54: 06 04/30/2010 |                   |
| MTL: -                               | BY: RAGRA                      |                   |

**BALDOR**

CONN DIAG - STANDARD 3 LEAD  
SH 1 of 1